at New York was 30.72 inches on the 10th and 30.68 inches on the 11th, and the remarkably steep gradient resulted in moderate to strong northeasterly gales along the coast from Key West to Hatteras, accompanied by comparatively high barometric readings. A number of press accounts of this storm have been received and the consensus of opinion of different shipmasters and officers was that the conditions were most unusual, as an increasing wind on a rising barometer is not often experienced. Capt. Chester W. Gilbert of the American steamship Venezuela was quoted as having stated that he had only seen one other storm of this character in his whole career at sea.

Table 1.—Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (seventy-fifth meridian). North Atlantic Ocean October, 1929.

Stations	A verage pressure	Depar- ture	Highest	Date	Lowest	Date	
	Inches	Inch	Inches		Inches	Inches	
Belle Isle, Newfoundland		1 -0.06	30. 36	31st	28.82	29th.	
Halifax, Nova Scotia		² -0.03	30. 58	30th	29. 28	17th.	
Nantucket		² -0.05	30.60	10th	29. 36	17th.	
Hatteras	30.06	² -0.04	30. 52	10th 3	29. 50	2d.	
Key West	29. 95	2 -0.01	30.08	26th	29. 70	21st.	
New Orleans	30.04	³ -0.02	30. 22	24th	29.72	28th.	
Cape Gracias, Nicaragua	29.84	1 -0.08	29. 92	27th	29. 76	18th.	
Turks Island	29.99	² +0.04	30.08	5th 4	29. 90	30th.	
Bermuda	30, 07	2 0.00	30. 30	31st	29.76	16th.	
Horta. Azores	30. 27	1 +0.14	30. 44	10th 3	29. 92	24th.	
Lerwick, Shetland Islands	29.47	1 - 0.32	30.33	31st	28.72	2d.	
Valencia, Ireland	29.86	1 -0.05	30. 3 9	31st	29. 20	5th.3	
London	29.84	1 -0.07	30.38	31st	29. 13	6th.	

From normals shown on Hydrographic Office Pilot Chart, based on observations at Greenwich mean noon, or 7 a. m. seventy-fifth meridian time.
 From normals based on 8 a. m. observations.
 And on other date.

From the 11th to 14th a depression over the central section of the ocean was responsible for moderate to strong gales during the greater part of that period, and on the 13th and 14th winds of force 7 to 10 were reported from the area between the fortieth and fiftieth parallels and the thirtieth and fiftieth meridians.

On the 15th anticyclonic northerly winds of gale force were encountered by vessels between the thirtieth and thirty-sixth parallels and the thirty-fifth and forty-second meridians, accompanied by barometric readings of from 30.11 to 30.20 inches.

On the 16th and 17th a Low was off the American coast between Nantucket and Belle Isle, with moderate to strong gales prevailing on both days.

From the 19th to the 22d the region between the Bermudas and Azores was swept by a severe disturbance, the wind reaching hurricane force at times. Charts X and XI show the conditions on the 21st and 22d, respectively. On the 21st and 22d there was also a disturbance of tropical origin off the American coast between the twenty-fifth and thirty-fifth parallels.

From the 23d to 27th westerly to southwesterly gales were encountered by vessels in the middle and eastern sections of the steamer lanes.

On the 28th one Low was central near Cape Ray, Newfoundland, and a second near 58° N., 28° W.; these both developed into severe disturbances as they moved slowly eastward, and on the 29th gales of force 8 to 11 were encountered between Halifax and Belle Isle, west of the forty-fifth meridian, and on the same day winds of force 8 and 9 prevailed between the twentieth meridian and British coast. On the 30th there was an extensive storm area over the middle section of the ocean, while by the 31st moderate weather prevailed generally.

OCEAN GALES AND STORMS, OCTOBER, 1929

													
Vessel	Voyage		Position at time of lowest barometer		Gale	Time of lowest	Gale	Low- est ba-	Direc- tion of wind	Direction and force of wind	Direc- tion of wind	Highest force of	Shifts of wind near time of
	From—	То	Latitude	Longitude	began	barometer	ended	rom- eter	when gale began	at time of lowest barometer	when gale ended	wind and direction	lowest baromete
NORTH ATLANTIC			. ,	• ,				Inches					
Naperian, Br. S. S Balsam, Am. S. S	Savannah New York	Liverpool		80 05 W. 7 45 W.	Oct. 1	10 a., 1 11 p., 1	Oct. 3	29. 54 29. 08	SE	SE., 8 SW., 7	SW	一, 8 S., 10	SSE8W. SW.
New York, Am. S. S Helen, Am. S. S	Port Arthur San Juan	New York Philadelphia.	33 38 N.	76 15 W. 74 17 W.	3	1 a., 2 8 a., 3	3	29. 61 29. 61	SE	SSE., 8 W., 10	W NW	SW., 9 W., 10	NWW.
New York City, Br. S. S. West Hobomac, Am. S. S.	Bristol Newcastle	New Orleans.	44 00 N.	63 00 W. 7 16 W.	4 5	6 a., 4 5 p., 5	4 5	29. 48 29. 30	wsw	SW., NW., 8	sw	NNW., 10-	Steady. SWNW.
Tuscaloosa City, Am. S. S.	Canal Zone	Liverpool	50 16 N.	11 31 W.	5	4 a., 6	6	29.45	NW	NW., 10	NW	NW., 11	NWWNW.
Coldwater, Am. S. S Winnebago, Br. S. S Wm. G. Warden, Am.	Savannah Brixham Corpus Chris-	Bremen New York do		17 15 W. 42 20 W. 79 43 W.	5 8 10	8 p., 7 Noon, 9 —, 10	9 9 12	29, 22 29, 81 30, 06	SE SSW NE	W., 9 SW., 9 NE., 9	NW W E	_, 9. SW., 9 ENE., 9	SSWNNE. SWW. NEE.
S. S. McKeesport, Am. S. S. Tynefield, Br. M. S. Milwaukee, Ger. M. S Freekier	ti. Havre Belfast Cobh Marseille	Baton Rouge New York Boston	51 03 N. 42 12 N. 49 10 N. 42 38 N.	32 23 W. 47 37 W. 31 40 W. 63 10 W.	10 9 14 16	5 p., 11 8 p., 12 8 a., 14 7 a., 16	14	29. 64 29. 77 29. 73 29. 45	SW NE NNW SE	SSW., 8 NNE., 6 NNW., 10. SE., 10	W	SW., 9 NE., 10 —, 10 SE., 10	SWSSW. NNENE. NNWW. SEWNW.
Excelsior, Am. S. S. Inverglass, Br. S. S. Exton, Am. S. S. Liberty Glo, Am. S. S.	Las Piedras New York Bremen	Southampton Genoa Jacksonville	30 55 N. 39 56 N. 48 48 N.	46 31 W. 73 55 W. 7 30 W.	17 20 20	Mdt., 17 9 a., 20 2 p., 20	18 24 21	29. 74 29. 98 29. 49 29. 67	NE WNW.	WSW., NE., 7 NW., SE., 9	SSE	WSW., 9 S., 10 N., 9 SE., 10	SNE. WNWNNW. Steady.
Momus, Am. S. S Magmeric, Am. S. S Deer Lodge, Am. S. S	New York Antwerp English Chan- nel.	New Orleans Charleston Gulf of Mex- ico	36 00 N. 35 06 N	76 50 W. 46 00 W. 43 41 W.	21 21 21	2 p., 21 7 p., 21 4 p., 21	21	29. 43 29. 72	SE	SE., SSE., 9	wssw	S., 12	Steady.
Steel Seafarer, Am. S. S. San Gil, Br. S. S. Wieldrecht, Du. S. S	Port Said St. John, N. B. Antwerp	New York Habana New Orleans.	46 13 N.	1 40 W. 75 30 W. 12 43 W.	20 21 25	11 p., 21 3 a., 22 11 p., 25	22	29. 55 29. 55 29. 88	WSW SE NNW	SW., 8 SE, 10 NNW., 10.	W W NW	SW., 9 SE., 10 NNW., 10.	Steady.
Tuscaloosa City, Am. S. S.	London	Baltimore	48 34 N.	44 07 W.	20	3 p., 26		29.37	NNW.	S., 10	N	WNW.,10.	1
West Alseek, Am. S S President Roosevelt	Avonmouth_ United King- dom.	New York do	50 45 N. 47 45 N.	16 05 W. 40 30 W.	28 29	2 p., 28 6 p., 29	29 30	29, 62 29, 59	wsw	W., 8 WŚW., 8		WNW., 10. WSW., 9	

Results for Julianehaab, Greenland, are not given, as observations were missing from that station on 7 days.